Sleep Disturbances After Orthopaedic Trauma

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Purpose: Musculoskeletal trauma can have a tremendous effect on patients' quality of life. However, the effect of orthopaedic trauma on patients' sleep quality has not been investigated. The purpose of this study was to examine the quality of sleep in a cohort of patients who have sustained musculoskeletal injuries, and to determine if sleep quality correlates with patient-perceived outcome.

Methods: We distributed questionnaires to all patients in the outpatient trauma clinic of a Level I trauma center during a 1-month period. The questionnaire given to assess sleep quality was the Pittsburgh Sleep Quality Index (PSQI). We also distributed the Short Form 36 (SF-36) to quantify patients' perceived outcome after their injury. Demographic data and injury type was also recorded for each patient. Statistical analysis was performed to determine any correlation between the PSQI score and the SF-36 score, and also to reveal any predictive factors for poor sleep quality.

Results: 267 patients completed the questionnaires properly and were included in the study. 19 (6.6%) questionnaires were excluded due to incomplete information. The overall prevalence of sleep disturbance (defined as global PSQI > 5) was 80.5%. 120 patients (44.9%) had a PSQI global score >10, which is similar to the level of sleep disturbance experienced by patients with clinical depression. 41 patients (15.4%) had a PSQI global score >15, which is a severe sleep disturbance. Females who sustained orthopaedic trauma had a greater sleep disturbance than males with a mean PSQI global score of 10.7 and 9.7, respectively ($P = 0.047$). Age was not statistically correlated with sleep disturbance. Every subscale of the SF-36, as well as the physical and mental composite scores, were negatively correlated with PSQI global score ($P < 0.001$). The subscale with the greatest negative correlation with PSQI global score was Bodily Pain

Conclusion: Sleep disturbance is an extremely common problem after orthopaedic trauma. Females who sustain orthopaedic trauma experience greater sleep disturbance than males. Patient sleep quality after orthopaedic trauma does correlate with patient-perceived outcome.

- The FDA has not cleared this drug and/or medical device for the use described in this presentation (i.e., the drug or medical device is being discussed for an "off label" use). For full information, refer to page 600.